

Claims

1. A method for the detection of a polymorphism in OATPF in a human which method comprises determining the sequence of the human at any one of the following positions:
  - 5 position 11-16 of SEQ ID NO: 15;
  - positions 86, 505, 1339 and 1991 of SEQ ID NO: 16;
  - position 8 of SEQ ID NO: 17.
2. A method according to claim 1 wherein the polymorphism is further defined as:
 

polymorphism at position 11-16 is presence of TAAAAAA and/or insertion of ACTTTGAAAG

10 in lieu thereof;

polymorphism at position 86 is presence of A and/or G;

polymorphism at position 505 is presence of C and/or T;

polymorphism at position 1339 is presence of A and/or G;

polymorphism at position 1991 is presence of A and/or T; and
- 15 polymorphism at position 8 is presence of Asn and/or Asp.
3. A method according to claim 1 or 2 wherein the method for detection of a nucleic acid polymorphism is selected from amplification refractory mutation system and restriction fragment length polymorphism.
4. Use of a method defined in any of claims 1-3 to assess the pharmacogenetics of a drug
 

20 transportable by OATPF.
5. A polynucleotide comprising at least 20 contiguous bases of the human OATPF gene and comprising an allelic variant selected from any of the following:

Region	variant	Position
Exon 1	G	86 (SEQ ID NO: 16)
Exon 4	T	505 (SEQ ID NO: 16)
Exon 9	G	1339 (SEQ ID NO: 16)
Exon 14	T	1991 (SEQ ID NO: 16)
Intronic	ACTTTGAAAG	11-20 (SEQ ID NO: 15)

6. An allele specific primer capable of detecting an OATPF gene polymorphism at
  - 25 position 11-16 of SEQ ID NO: 15, and position 86, 505, 1339 and 1991 of SEQ ID NO: 16.
7. An allele specific oligonucleotide probe capable of detecting a OATPF gene polymorphism at position 11-16 of SEQ ID NO: 15 and position 86, 505, 1339 and 1991 of SEQ ID NO: 16.

8. A diagnostic kit comprising an allele specific oligonucleotide probe of claim 7 and/or an allele-specific primer of claim 6.
9. A method of treating a human in need of treatment with a drug transportable by OATPF in which the method comprises:
  - 5 i) detection of a polymorphism in OATPF in a human, which method comprises determining the sequence of the human at one or more of:  
position 11-16 of SEQ ID NO: 15;  
positions 86, 505, 1339 and 1991 of SEQ ID NO: 16;  
position 8 of SEQ ID NO: 17; and
  - 10 ii) administering an effective amount of the drug.
10. Use of a drug transportable by OATPF in preparation of a medicament for treating a disease in a human determined as having a polymorphism at one of the following positions:  
position 11-16 of SEQ ID NO: 15;  
positions 86, 505, 1339 and 1991 of SEQ ID NO: 16;
- 15 position 8 of SEQ ID NO: 17.
11. An allelic variant of human OATPF polypeptide comprising an aspartic acid at position 8 of SEQ ID NO: 17 or a fragment thereof comprising at least 10 amino acids provided that the fragment comprises the allelic variant at position 8 of SEQ ID NO: 17.
12. An antibody specific for an allelic variant of human OATPF polypeptide as described  
20 herein having an aspartic acid at position 8 of SEQ ID NO: 17 or a fragment thereof comprising at least 10 amino acids provided that the fragment comprises the allelic variant at position 8 of SEQ ID NO: 17.
13. A diagnostic kit comprising an antibody of claim 12.